

# EUROPEAN PATENT OFFICE

## Patent Abstracts of Japan

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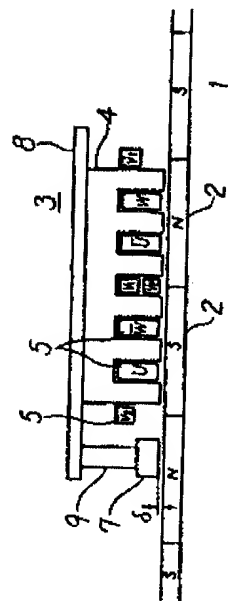
APPLICATION DATE : 03-03-86  
APPLICATION NUMBER : 61045652

APPLICANT : YASKAWA ELECTRIC MFG CO LTD;

INVENTOR : IWAGANE TAKANOBU;

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TITLE : LINEAR MOTION MOTOR



ABSTRACT : PURPOSE: To reduce the cogging of a linear motion motor by forming definite spaces at one or both sides of an armature core in its moving direction, and securing magnetic pieces through a magnetic field and an air gap in parallel with the upper surfaces opposed to a field armature.

CONSTITUTION: An armature 3 is composed of an armature core 4 formed in a pectinated shape by laminating electromagnetic iron plates in which slots for containing 3-phase armature windings 5 are punched, 3-phase armature windings 5 contained in the slots of the core 4, and a frame 8 to which the core 4 is secured. A magnetic piece 7 is secured to the frame 8 through a supporting member 9 in parallel through an air gap length  $\delta$  on the upper surface of a field 1 so that the composite force of a horizontal force acting on the piece 7 and a cogging torque generated in the core 4 becomes minimum. Thus, the cogging torque can be reduced.

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